AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.   (previously presented): A method of describing pattern repetitiveness of an image comprising the steps of:

(a) projecting an image on a predetermined axis having a predetermined direction;

(b) decomposing the projected image down one level;

(c) increasing a threshold value used for denoising if a previous pattern quantizing value is identical to a current pattern quantizing value, and denoising the decomposed data; and

(d) describing pattern repetitiveness of the image using the pattern quantizing value of the denoised data and the threshold value used for denoising.

2.   (original): The method of claim 1, wherein the decomposition is based on a discrete wavelet transform.

3.   (previously presented): The method of claim 1, wherein step (c) comprises the steps of:

(c-1) calculating the pattern quantizing value of the projected image;

(c-2) decomposing the projected image down one level;

(c-3) denoising the decomposed result data using a predetermined threshold value;

(c-4) calculating the pattern quantizing value of the denoised data;

(c-5) discriminating whether the current pattern quantizing value is identical to the previous pattern quantizing value;

(c-6) increasing the threshold value used for denoising if the current pattern quantizing value is identical to the previous pattern quantizing value, and returning to step (c-3); and

(c-7) determining the previous pattern quantizing value as a final pattern quantizing value if the current pattern quantizing value is not identical to the previous pattern quantizing value.

4. (previously presented): The method of claim 3, wherein step (d) comprises:

(d') describing the pattern repetitiveness of the image on the basis of the pattern quantizing value determined in the step (c-7) and the threshold value used for denoising.

5. (canceled).

6. (currently amended): The method of claim ~~5~~ 1, wherein the ~~decomposition~~ decomposing is based on a discrete wavelet transform.

7. (currently amended): The method of claim ~~5~~ 1, wherein step (b) comprises the steps of:

(b-1) calculating the pattern quantizing value of the projected image;

(b-2) decomposing the projected image down one level;

(b-3) calculating the quantizing value of the decomposed result data;

(b-4) determining whether the previous pattern quantizing value is identical to the pattern quantizing value after the decomposition;

(b-5) if the previous pattern quantizing value is identical to the pattern quantizing value after the decomposition, returning to step (b-2); and

(b-6) if the previous pattern quantizing value is not identical to the pattern quantizing value after the decomposition, determining a previous level as a final level.

8.   (previously presented): The method of claim 7, wherein the pattern repetitiveness describing method of the image further comprises the steps of:

(b-7) denoising data of the level determined in the step (b-6) using a predetermined threshold value;

(b-8) calculating the pattern quantizing value of the denoised data;

(b-9) determining whether the current pattern quantizing value is identical to the previous pattern quantizing value;

(b-10) if the current pattern quantizing value is identical to the previous pattern quantizing value, increasing the threshold value used for denoising, and returning to step (b-7); and

(b-11) if the current pattern quantizing value is not identical to the previous pattern quantizing value, determining the previous pattern quantizing value as a final pattern quantizing value.

9.   (previously presented): A method of grouping images having similar texture characteristics within an image database in which a plurality of images are stored, the method comprising the steps of:

(a) projecting an image on a predetermined axis having a predetermined direction;

(b) decomposing the projected image down one level;

(c) increasing a threshold value used for denoising if a previous pattern quantizing value is identical to a current pattern quantizing value, and denoising the decomposed data;

(d) determining pattern repetitiveness vectors including the pattern quantizing value of the denoised data and the threshold value used for denoising as pattern repetitiveness descriptors of images; and

(e) grouping images having similar texture characteristics using the pattern repetitiveness descriptors of the images.

10.   (canceled).

11.   (previously presented): The method of claim 1, wherein the step (c) comprises increasing the threshold value until the pattern quantizing value changes.

12.   (previously presented): The method of claim 1, wherein the step (c) comprises increasing the threshold value used for denoising if a current pattern quantizing value is identical to a previous pattern quantizing value.

13.   (previously presented): The method of claim 1, wherein the step (c) comprises:

denoising the decomposed result data using a predetermined threshold value;

calculating a current pattern quantizing value of the denoised data;

increasing the threshold value used for denoising if the current pattern quantizing value is identical to a previous pattern quantizing value.

14.   (previously presented): A method of describing pattern repetitiveness of an image, the method comprising:

projecting an image on a predetermined axis to generate a projected image;

calculating a pattern quantization value;

decomposing the projected image down one level;

denoising using a predetermined threshold value;

calculating a current pattern quantization value;

determining if a previous pattern quantization value is identical to a current pattern quantization value;

if the previous pattern quantization value is identical to the current pattern quantization value, increasing a threshold value used for denoising and repeating the denoising at the increased threshold value; and

if the previous pattern quantization value is not identical to the current pattern quantization value, determining previous pattern quantizing value as a final pattern quantization value and describing pattern repetitiveness of image based on the final pattern quantization value and the threshold value used for denoising.